

Urology Basic Science MCQ Question Answer

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Question: 1. What is the number of bacteria per high-power field microscopy that matches colony counts of 100,000/mL?

- Option A. 100
- Option B. 50
- Option C. 10
- Option D. 5

Question: 2. What is false concerning the urinary bladder anatomy?

- Option A. as it distends, it peels off the peritoneum from the abdominal wall
- Option B. the interureteric ridge is located between the 2 ureteric orifices and the uvula vesicae
- Option C. Waldeyer's sheath covers only the distal ureter and forms the deep trigone
- Option D. in adults, it is percussible over the abdomen when contains at least 150 ml

Question: 3. Which agent should be avoided during living-related donor nephrectomy?

- Option A. ice slush
- Option B. heparin
- Option C. norepinephrine
- Option D. methylene blue

Question: 4. Which of the following is false regarding Addison's disease?

- Option A. autoimmune disease in 70% of the cases
- Option B. diagnosed by the rapid ACTH stimulation test
- Option C. characterized by low serum sodium and high potassium
- Option D. may coexist with hyperthyroidism and diabetes mellitus

Question: 5. What class of antibiotics might cause vestibular and/or auditory impairment?

- Option A. aminoglycosides
- Option B. antipseudomonal penicillins
- Option C. cephalosporins
- Option D. fluoroquinolones

Question: 6. What type of renal tubular acidosis (RTA) does demonstrate aldosterone resistance?

- Option A. type 1
- Option B. type 2
- Option C. type 3
- Option D. type 4

Question: 7. Which of the following is false regarding zona glomerulosa?

- Option A. the most superficial layer of the adrenal cortex
- Option B. responses to increased potassium levels, renin or decreased renal blood flow
- Option C. it causes pheochromocytoma
- Option D. secretes aldosterone

Question: 8. Which of the following is NOT a component of the normal semen?

- Option A. zinc
- Option B. fructose
- Option C. prostate-specific antigen
- Option D. alkaline phosphatase

Question: 9. Which group(s) of lymph nodes drain(s) the glans penis?

- Option A. internal and external iliac
- Option B. superficial inguinal
- Option C. deep inguinal
- Option D. superficial and deep inguinal

Question: 10. What is the most frequent anomaly associated with multicystic renal dysplasia?

- Option A. ureteral atresia
- Option B. vesicoureteral reflux
- Option C. ureteropelvic junction obstruction
- Option D. ureteral duplication

Question: 11. What is false about purple urine bag syndrome?

- Option A. occurs due to the interaction between the chemical components of the urine and polyvinyl chloride material in the urine bag
- Option B. it is commonly symptomless
- Option C. more common in female nursing home residents
- Option D. commonly implicated bacteria are *K. pneumoniae*, *P. mirabilis*, *E. coli*

Question: 12. Which agent is safe to kidneys?

- Option A. amoxicillin
- Option B. gentamycin
- Option C. diclofenac
- Option D. herb extract

Question: 13. Which hormone measures testicular germ cell function best?

- Option A. LH
- Option B. FSH
- Option C. HCG
- Option D. none of the above

Question: 14. What could cause autonomic dysreflexia?

- Option A. full bladder or rectum
- Option B. tooth extraction
- Option C. hypertension medications
- Option D. uncontrolled diabetes mellitus

Question: 15. How many renal papillae are there in a typical kidney?

- Option A. 4 to 6
- Option B. 7 to 9
- Option C. 10 to 12
- Option D. 13 to 14

Question: 16. Which type of urinary casts are solidified TammHorsfall mucoproteins secreted from the tubular epithelial cells of individual nephrons?

- Option A. granular
- Option B. hyaline
- Option C. waxy
- Option D. pigment

Question: 17. What do the specialized cells, at the juxtaglomerular apparatus, produce?

- Option A. erythropoietin
- Option B. renin
- Option C. angiotensin I
- Option D. angiotensinogen

Question: 18. Which of the following hormones, primarily, controls spermatogenesis?

- Option A. GnRH
- Option B. testosterone
- Option C. LH
- Option D. FSH

Question: 19. Which statement regarding post-obstructive diuresis (POD) is false?

- Option A. urine production exceeding 200 ml/hr for 2 consecutive hours or producing greater than 3 L of urine in 24 hours is diagnostic of POD
- Option B. pathologic POD can be exacerbated by excessive fluid replacement
- Option C. the replacement fluid choice is ringer lactate
- Option D. fluid resuscitation depends on the degree of dehydration

Question: 20. From where does the main parasympathetic efferent innervation to the pelvic plexus arise?

- Option A. S1
- Option B. S2-S4
- Option C. T11-L2
- Option D. L3-S1

Question: 21. Which artery is NOT a branch of the anterior division of internal iliac artery?

- Option A. superior vesical artery
- Option B. inferior vesical artery
- Option C. superior gluteal artery
- Option D. inferior gluteal artery

Question: 22. What is the appropriate intravenous maintenance fluid for a 16 kg girl?

- Option A. 43 ml/hr of normal saline
- Option B. 78 ml/hr of $\frac{1}{4}$ normal saline
- Option C. 69 ml/hr of $\frac{1}{2}$ normal saline
- Option D. 54 ml/hr of $\frac{1}{4}$ normal saline

Question: 23. Which statement is false concerning the gubernaculua?

- Option A. degenerate after birth
- Option B. called the caudal genital ligaments
- Option C. help guide the testes down through the inguinal canals
- Option D. represent undifferentiated mesenchyme

Question: 24. Which type of renal stone crystals is known as coffin lid?

- Option A. oxalate
- Option B. struvite
- Option C. urate
- Option D. cystine

Question: 25. Adult size of bladder capacity is achieved at what age?

- Option A. 5 6 yrs.
- Option B. 7 8 yrs.
- Option C. 9 10 yrs.
- Option D. 11 12 yrs.

Question: 26. Which of the following is (are) direct branch(es) of the abdominal aorta?

- Option A. median sacral artery
- Option B. inferior phrenic arteries
- Option C. gonadal arteries
- Option D. all of the above

Question: 27. Which artery(ies) supply(ies) the prostate?

- Option A. middle rectal
- Option B. inferior vesical
- Option C. a & b
- Option D. none of the above

Question: 28. What is the best initial therapy for hyponatremic dehydration?

- Option A. administration of hypertonic saline
- Option B. administration of crystalloid
- Option C. administration of normal saline
- Option D. administration of ringer lactate

Question: 29. Which of the following does asymptomatic hematuria workup include?

- Option A. cystoscopy
- Option B. CT urography
- Option C. urine cytology
- Option D. all of the above

Question: 30. Which of the prostate medications could result in significant hypotension?

- Option A. finasteride
- Option B. prazosin
- Option C. silodosin
- Option D. vardenafil

Answer Sheet

1	D	self-explanatory.
2	B	the trigone is located between the 2 ureteric orifices and the uvula vesicae.
3	C	norepinephrine could result in intrarenal vascular constriction which impairs allograft function.
4	D	may coexist with hypothyroidism.
5	A	aminoglycosides might cause ototoxicity to both vestibular and auditory components.
6	D	type 4 RTA is common in diabetics with chronic renal disease who demonstrate aldosterone resistance.
7	C	zona glomerulosa secretes aldosterone, fasciculate secretes cortisol, reticularis secretes androgens and estrogen. Pheochromocytoma is a tumor of the renal medulla.
8	D	acid phosphatase is a normal component human semen.
9	A	the glans penis drains into the internal and external iliac lymph nodes.
10	A	self-explanatory.
11	A	it is caused by the indicated bacteria.
12	A	amoxicillin is the safest. It is safer to avoid herb extracts.
13	B	FSH levels are inversely proportional to testicular germ cell function.
14	A	full bladder or rectum are the common reasons of autonomic dysreflexia.

15	B	the number of renal papillae in either kidney varies from 4 to 18, but a typical kidney has 7 to 9.
16	B	the most common type of cast is hyaline cast that is solidified Tamm Horsfall mucoproteins secreted from the tubular epithelial cells of individual nephrons.
17	B	self-explanatory.
18	B	testosterone controls spermatogenesis probably through Sertloï's cells.
19	C	the replacement fluid of choice is normal saline.
20	B	the autonomic innervation of the pelvic organs arises from the pelvic plexus of (S2 to S4).
21	C	superior gluteal artery is a branch of the posterior division of the internal iliac artery.
22	D	maintenance fluid is $\frac{1}{4}$ NS computed as follows; 100 ml for every kg for the first 10 kg of the child weight, then 50 ml for every kg for the second 10 kg of the child weight, and then 20 ml for every kg for the third 10 kg of the child weight. For this girl the sum up for 24 hr is 1300 ml which equals to 54 ml/hr.
23	A	gubernaculua remain the whole life.
24	B	struvite or triple phosphate or MAP crystals are known as coffin lid crystals.
25	C	the Koff formula ((bladder capacity (in ounces) = age (in years) + 2)).
26	D	self-explanatory.
27	C	self-explanatory.
28	C	the best of the listed choices that provides sodium and fluids is NS.
29	D	self-explanatory.
30	B	prazosin is an old generation alpha adrenergic blocker that is currently used to treat hypertension.